


```
LL      IIIIII  BBBB BBBB  EEEEEEEEEEE  XX      XX  TTTTTTTTTT  ZZZZZZZZZZZ  VV      VV
LL      IIIIII  BBBB BBBB  EEEEEEEEEEE  XX      XX  TTTTTTTTTT  ZZZZZZZZZZZ  VV      VV
LL      III      BBBB      BB  EEEEEEEEEEE  XX      XX  TTTTTTTTTT  ZZZZZZZZZZZ  VV      VV
LL      III      BBBB      BB  EEEEEEEEEEE  XX      XX  TTTTTTTTTT  ZZZZZZZZZZZ  VV      VV
LL      III      BBBB      BB  EEEEEEEEEEE  XX      XX  TTTTTTTTTT  ZZZZZZZZZZZ  VV      VV
LL      III      BBBB      BB  EEEEEEEEEEE  XX      XX  TTTTTTTTTT  ZZZZZZZZZZZ  VV      VV
LL      III      BBBB      BB  EEEEEEEEEEE  XX      XX  TTTTTTTTTT  ZZZZZZZZZZZ  VV      VV
LL      III      BBBB      BB  EEEEEEEEEEE  XX      XX  TTTTTTTTTT  ZZZZZZZZZZZ  VV      VV
LL      III      BBBB      BB  EEEEEEEEEEE  XX      XX  TTTTTTTTTT  ZZZZZZZZZZZ  VV      VV
LL      III      BBBB      BB  EEEEEEEEEEE  XX      XX  TTTTTTTTTT  ZZZZZZZZZZZ  VV      VV
LLLLLLLLLLLL IIIIII  BBBB BBBB  EEEEEEEEEEE  XX      XX  TTTTTTTTTT  ZZZZZZZZZZZ  VV      VV
LLLLLLLLLLLL IIIIII  BBBB BBBB  EEEEEEEEEEE  XX      XX  TTTTTTTTTT  ZZZZZZZZZZZ  VV      VV
```

```
LL      IIIIII  SSSSSSSSS
LL      IIIIII  SSSSSSSSS
LL      III      SS
LL      III      SS
LL      III      SS
LL      III      SS
LL      III      SSSSSSS
LL      III      SSSSSSS
LL      III      SS
LL      III      SS
LL      III      SS
LLLLLLLLLLLL IIIIII  SSSSSSSSS
LLLLLLLLLLLL IIIIII  SSSSSSSSS
```

(2) 48
(3) 70

DECLARATIONS
LIBSEXTZV - Extract a zero extended field

```
0000 1      .TITLE  LIBSEXTZV      extracts and zero extends a field
0000 2      .IDENT  /1-002/      ; File: LIBEXTZV.MAR
0000 3
0000 4
0000 5 *****
0000 6
0000 7 *
0000 8 *  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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0000 25 *
0000 26 *****
0000 27
0000 28
0000 29 ++
0000 30 FACILITY: General Utility Library
0000 31
0000 32 ABSTRACT:
0000 33
0000 34 Extract a longword zero extended field
0000 35
0000 36 ENVIRONMENT: AST Reentrant
0000 37
0000 38 AUTHOR: Donald G. Petersen, CREATION DATE: 29-Dec-77
0000 39
0000 40 MODIFIED BY:
0000 41
0000 42 Donald G. Petersen, 29-Dec-77 : VERSION 00
0000 43 01 - original
0000 44 1-001 - Update copyright notice and version number. JBS 16-NOV-78
0000 45 1-002 - Add "-" to PSECT directive. JBS 21-DEC-78
0000 46 --
```



```
0000 48 .SBTTL DECLARATIONS
0000 49 :
0000 50 : INCLUDE FILES:
0000 51 :
0000 52 :
0000 53 :
0000 54 : MACROS:
0000 55 :
0000 56 :
0000 57 :
0000 58 : EQUATED SYMBOLS:
0000 59 :
0000 60 :
0000 61 :
0000 62 : OWN STORAGE:
0000 63 :
0000 64 :
0000 65 :
0000 66 : PSECT DECLARATIONS:
0000 67 :
00000000 68 .PSECT _LIB$CODE PIC, SHR, LONG, EXE, NOWRT
```

```
0000 70 .SBTTL LIB$EXTZV - Extract a zero extended field
0000 71 :++
0000 72 : FUNCTIONAL DESCRIPTION:
0000 73 :
0000 74 : Return a longword zero extended field which has been extracted from the spec
0000 75 : variable bit field. If the size specified is zero, a zero is returned.
0000 76 : Specifying a size greater than 31 results in a reserved operand fault.
0000 77 :
0000 78 : CALLING SEQUENCE:
0000 79 :
0000 80 : field.wlu.v = LIB$EXTZV (pos.rl.r, size.rbu.r, base.rv.r)
0000 81 :
0000 82 : POSITION = 4 ; Adr. of longword position
0000 83 : SIZE = 8 ; Adr. of byte containing size
0000 84 : BASE = 12 ; Adr. of base of field
0000 85 :
0000 86 :
0000 87 : INPUT PARAMETERS:
0000 88 :
0000 89 : NONE
0000 90 :
0000 91 : IMPLICIT INPUTS:
0000 92 :
0000 93 : NONE
0000 94 :
0000 95 : OUTPUT PARAMETERS:
0000 96 :
0000 97 : NONE
0000 98 :
0000 99 : IMPLICIT OUTPUTS:
0000 100 :
0000 101 : NONE
0000 102 :
0000 103 : FUNCTION VALUE:
0000 104 :
0000 105 : field
0000 106 :
0000 107 : SIDE EFFECTS:
0000 108 :
0000 109 : $$$ROPRAND - reserved operand fault for size greater than 31
0000 110 :
0000 111 :--
0000 112 :
0000 113 :
0000 114 :
0000 115 : .ENTRY LIB$EXTZV, ^M<> ; ENTRY POINT (OR MASK)
0002 116 :
50 0C BC 08 BC 04 BC EF 0002 117 EXTZV @POSITION(AP), @SIZE(AP), -
000A 118 @BASE(AP), R0 ; extract and zero extend
04 000A 119 RET
000B 120
000B 121
000B 122 .END
```

LIBEXTZV
Symbol table

extracts and zero extends a field^{D 9}

16-SEP-1984 00:08:16 VAX/VMS Macro V04-00
6-SEP-1984 11:06:45 [LIBRTL.SRC]LIBEXTZV.MAR;1

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BASE = 0000000C
LIBEXTZV = 00000000 RG 01
POSITION = 00000004
SIZE = 00000008

! Psect synopsis !

PSECT name	Allocation	PSECT No.	Attributes
ABS	00000000 (0.)	00 (0.)	NOPIC USR
LIBSCODE	00000008 (11.)	01 (1.)	PIC USR

CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
CON REL LCL SHR EXE RD NOWRT NOVEC LONG

! Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.06	00:00:00.73
Command processing	106	00:00:00.35	00:00:02.52
Pass 1	63	00:00:00.23	00:00:01.39
Symbol table sort	0	00:00:00.00	00:00:00.01
Pass 2	37	00:00:00.17	00:00:01.26
Symbol table output	1	00:00:00.00	00:00:00.00
Psect synopsis output	2	00:00:00.01	00:00:00.13
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	240	00:00:00.83	00:00:06.04

The working set limit was 900 pages.
1166 bytes (3 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 4 non-local and 0 local symbols.
122 source lines were read in Pass 1, producing 10 object records in Pass 2.
0 pages of virtual memory were used to define 0 macros.

! Macro library statistics !

Macro library name	Macros defined
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	0

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS\$:LIBEXTZV/OBJ=OBJ\$:LIBEXTZV MSRC\$:LIBEXTZV/UPDATE=(ENH\$:LIBEXTZV)

0206 AH-BT13A-SE
VAX/VMS V4.0

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